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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,417	07/19/2001	Masahiro Yatake	U 013559-6	7288

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LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,417

Applicant(s)

YATAKE, MASAHIRO

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-8, 11, 12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-8, 11, 12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections are overcome by applicants' amendment filed 3/2/05.

The new grounds of rejection as set forth below are necessitated by applicants' amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4-8, 11-12, and 14-23 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 4 has been amended to recite that ink contains 3-10% propylene glycol monobutyl ether. It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the lower limit of propylene glycol monobutyl ether as set forth in the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the recitation of lower limit of 3% propylene glycol monobutyl ether, applicants point to the examples. However, while there is support in the examples to recite a

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lower limit of 3.5% propylene glycol monobutyl ether, there does not appear to be any support to recite 3% propylene glycol monobutyl ether in the specification as originally filed.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-8, 11-12, and 14-23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 has been amended to recite that the ink contains “at least one of 5% to 20% by weight di(tri)ethylene glycol monobutyl ether and 3% to 10% by weight (di)propylene glycol monobutyl ether”. The scope of the claim is confusing because it is not clear if the ink must contain at least one of diethylene glycol monobutyl ether and triethylene glycol monobutyl ether and (di)propylene glycol monobutyl ether or if the ink must contain at least one of diethylene glycol monobutyl ether, triethylene glycol monobutyl ether, and (di)propylene glycol monobutyl ether. Does the ink require both di(tri)ethylene glycol monobutyl ether and (di)propylene glycol monobutyl ether? Clarification is requested.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 4-5, 8, 11-12, 14-18, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi (U.S. 6,432,186).

Taniguchi discloses ink jet ink comprising water, 2-20% solvent such as glycerol, colorant which is water-soluble dye, 0.05-5% acetylene glycol, 3-10% alkylene oxide adduct of glycerol wherein the compound comprises 1-30 ethyleneoxy or propyleneoxy groups, and 0.5-20% glycol ether including mixtures of diethylene glycol monobutyl ether. The ink possesses surface tension of 24-40 mN/m. There is also disclosed method for ink jet printing wherein the above ink is ejected from ink jet printer onto substrate (col.1, lines 6-8, col.1, line 50-col.2, line 3, col.2, line 61-col.3, line 3, col.4, lines 15-44, col.5, lines 18-20, 40-43, and 64-65, col.6, lines 44-51, col.7, lines 45 and 50-53, col.8, lines 11-18, col.10, lines 10-14, and col.15, lines 23-26).

In light of the above, it is clear that Taniguchi et al. anticipate the present claims.

NOTE: In light of the confusion with respect to the scope of claim 4 as set forth in paragraph 5 above, it is noted that if, in fact, the present claims require both di(tri)ethylene glycol monobutyl ether and (di)propylene glycol monobutyl ether, the above 35 USC 102 rejection would be withdrawn.

Further, it is noted that as set forth in amended 35 USC 103(c), subject matter which qualifies as prior art under one or more subsections (e), (f), and (g) of section 102 cannot be applied against the claimed invention if the prior art and the claimed invention “were, at the time

the invention was made, owned by the same person or subject to an obligation of assignment to the same person.” This rule change to 103(c) applies to any patent application filed on or after November 29, 1999. See Official Gazette, April 11, 2000. As noted in the Official Gazette, the “mere filing of a continuation application on or after November 29, 1999 will serve to exclude commonly owned 102(e) prior art that was applied, or could have been applied, in a rejection under 103 in the parent application.”

Given that the filing date of the present application is subsequent to November 29, 1999 and Taniguchi et al. would qualify as prior art under 35 USC 102(e), applicant is advised that a 35 USC 103 rejection utilizing Taniguchi et al. would not be envisaged by the examiner if applicant were to file a statement indicating that Taniguchi et al. was commonly owned at the time the present invention was made. See the Official Gazette Notice of April 11, 2000, 1233 OG 54.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 4-9 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui et al. (U.S. 5,945,155) in view of Yatake (U.S. 5,746,818).

Yui et al. disclose ink comprising water, colorant including self-dispersing pigment, 3-50% solvent such as glycerin, and 0.01-20% ethylene oxide/propylene oxide adduct of polyglycerin that comprises 0-200 repeating units of the formula CH_2CHRO , degree of

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polymerization of 2-30, and molecular weight of 166-250. There is also disclosed method for ink jet printing wherein the above ink is ejected from ink jet printer onto substrate (col.2, lines 30-54, col.3, lines 1-53, col.5, lines 15-28, and col.7, lines 6 and 40-42). Attention is drawn to example 2 which discloses ink comprising 55% pigment dispersion, 12% glycerin, 7% EO/PO adduct of polyglycerin, and water.

The difference between Yui et al. and the present claimed invention is the requirement in the claims of glycol ether.

Yatake, which is drawn to ink jet ink, disclose the use of 3-30% glycol ethers such as 2 or more of diethylene glycol monobutyl ether and (di)propylene glycol monobutyl ether in order to inhibit bleeding or feathering and to produce high quality image (col.2, lines 11-14 and 26-35 and col.4, lines 8-19).

Although there is no disclosure of the surface tension of the ink in Yui et al., given that Yui et al. in combination Yatake disclose ink identical to that presently claimed, it is clear that the ink would intrinsically possess surface tension as presently claimed.

In light of the motivation for using glycol ether disclosed by Yatake, it therefore would have been obvious to one of ordinary skill in the art to use such glycol ethers in the ink jet ink of Yui et al. , and thereby arrive at the claimed invention.

Response to Arguments

10. Applicants' arguments filed 3/2/05 have been fully considered but they are not persuasive.

Specifically, applicants argue that Yui et al. is not a relevant reference against the present claims given that one of skill in the art would have to pick and choose from a vast number of possible combination of components, including optional components, and ranges of components in the cited references. Applicants also argue that Yui et al. do not show the criticality of including the claimed saccharide-alkyleneoxy derivative into the claimed ink in the cited amount as required in the present claims.

It is noted that in light of the amendment to present claim 4 that now requires the use of glycol ether(s), Yui et al. is now used in combination with Yatake.

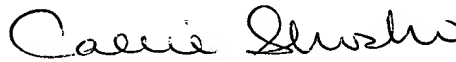
Contrary to applicant's arguments, it is the examiner's position that one would not have to pick and choose from among vast number of combinations of components and ranges of components in Yui et al. As set forth in example 2 of Yui et al., the reference already discloses the criticality of using combination of pigment, glycerin, EO/PO adduct of polyglycerin, and water as required in the present claims. The only difference between Yui et al. and the present claimed invention is that there is no disclosure of glycol ethers, now required in all the present claims, which is why Yui et al. is now combined with Yatake, which discloses the criticality of using glycol ethers in combination with self-dispersing pigment.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
6/10/05